

Companies $C_1, C_2 \dots C_T$

Financial Data Categories
D₁, D₂
... D₃₀

	C ₁	C_2	C_3	•••	C_{T}
D ₁ D ₂ D ₃	$X_{1,1} \ X_{2,1} \ X_{3,1}$	$X_{1,2} \ X_{2,2} \ X_{3,2}$	$X_{1,3} \ X_{2,3} \ X_{3,3}$		X _{1,T} X _{2,T} X _{3,T}
	•	-	•		•
-	•	•	•		•
	•	•	•		•
1 .					
					•
D ₃₀	X _{30.1}				Х _{30,Т}

X Matrix 100 (valuation data)

Companies $C_1,\,C_2\,\dots\,C_T$

Time Indices t to t-2500

	C ₁	C ₂	C ₃	•••	Ст	200
t t-1 t-2	$Y_{t,1} \\ Y_{t-1,1} \\ Y_{t-2,1}$	$Y_{t-1,2}$	$Y_{t,3} \\ Y_{t-1,3} \\ Y_{t-2,3}$		$\begin{matrix} Y_{t,T} \\ Y_{t-1,T} \\ Y_{t-2,T} \end{matrix}$	
	•		•			
·	•	•	•			
·	•	•	•			
t-250	0.	•		·····		

Y Matrix 200 (time-series data)

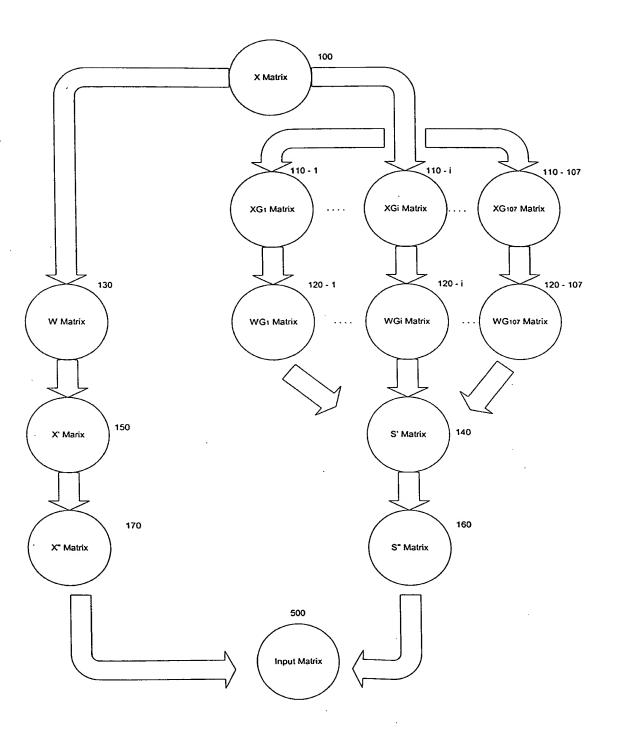
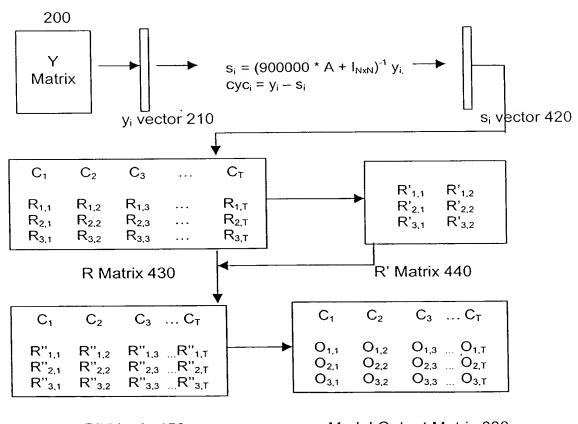


FIG. 4

1	-2	1	0	0		0
-2	5	-4	1	0		0
1	-4	6	-4	1		0
l o	1	-4	6	-4		0
0	0	1	-4	6		0
				-		
		•	•			•
			•		•	•
0		6	-4	1	0	0
0		-4	6	-4	1	0
0		1	-4	6	-4	1
0		0	1	-4	5	-2
0		0	0	1	-2	1
1						

A Matrix 610



R" Matrix 450

Model Output Matrix 600

FIG. 5

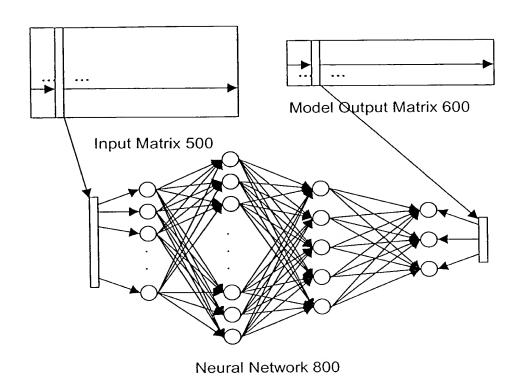


FIG. 6